Virus linked to prostate tumours

Prostate cancer is a major killer
A virus known to cause cancer in animals has been found for the first time in human prostate cancer cells.

The researchers from the University of Utah and Columbia University medical schools found the virus in 27% of the 200 cancerous prostates they looked at.

They say it was associated with more aggressive tumours and found in only 6% of non-cancerous prostates.

This is the first report to link XMRV (Xenotropic murine leukaemia virus-related virus) to human cancers.

Retrovirus

XMRV is a retrovirus like HIV which works by inserting a copy of its own DNA into the chromosomes of a cell they infect.

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Dr Ila Singh, University of Utah
Where this occurs next to a gene that regulates cell growth it can disrupt the normal development of the cell.

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Dr Ila Singh, who led the study from the pathology department at the University of Utah, said: "We still don't know that this virus causes cancer in people, but that is an important question we are going to investigate."

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PROSTATE CANCER FACTS

Most common cancer in men in UK
10,000 die each year
Most cases are in those aged 70-74
Higher rates in most deprived populations
Source: Cancer Research UK

"This is particularly interesting because if we can prove that it responds to oestrogen it could have a role in other cancers.

"We are already looking at the bodies of 100 women and 100 men, who died from other causes, to see if any other organs carry the virus."

Risk factor

Dr Helen Rippon, Head of Research Management at The Prostate Cancer Charity, said the research was intriguing but posed several key questions about the role the infection plays in prostate cancer.

"It is critically important to identify key triggers of prostate cancer to improve early detection"

Dr Helen Rippon, Prostate Cancer Charity

She said: "Around the world, extensive work is being undertaken to identify risk factors for prostate cancer which will enable treatments and tests for the disease to be refined.

"It is critically important to identify key triggers of prostate cancer to improve early detection of the disease in men with potentially life threatening prostate cancer."

Dr Chris Parker, Cancer Research UK's prostate cancer expert at the Institute of Cancer Research said: "This exciting study raises the possibility that the virus might contribute to the development of some prostate cancers.

"In the future, if it turns out to be true, then we could speculate about the possibility of vaccination to protect against prostate cancer, similar to the approach now used to prevent cervical cancer."